

## **Patents and Publications of W. Carroll Campbell**

---

### **PATENTS**

U.S. Patent 4,943,762, Jul. 24, 1990: Power supply system. W. Carroll Campbell, Michael W. Evans, Edward A. Browning, Jr. and Robert J. Stone.

U.S. Patent 4,985,804, Jan. 15, 1991: Microcomputer housing and ventilation arrangement. W. Carroll Campbell, Michael W. Evans, Edward A. Browning, Jr. and Robert J. Stone.

U.S. Patent 5,437,040, Jul. 25, 1995: Electronic system with variable threshold power failure signaling. William C. Campbell and Barry O. Blair.

---

### **JOURNAL ARTICLES**

Chadwick, R.B., K.P. Moran, R.G. Strauch, G.E. Morrison, and W.C. Campbell, 1976: A new radar for measuring winds, *Bull. Amer. Meteorol. Soc.*, **57**, 1120-1125.

Strauch, R.G., W.C. Campbell, R.B. Chadwick, and K.P. Moran, 1976: Microwave FM-CW Doppler Radar for Boundary Layer Probing, *Geophysical Research Letters*, **3**, 193-196.

Chadwick, R.B., K.P. Moran, R.G. Strauch, G.E. Morrison, and W.C. Campbell, 1976: Microwave Wind Measurements in the Clear Air, *Radio Science*, **11**, 795-802.

Chadwick, R.B., K.P. Moran, and W.C. Campbell, 1979: Design of a Wind Shear Detection Radar for Airports, *IEEE Trans. Geoscience Electronics*, **GE-17**, 137-142.

---

### **CONFERENCE PROCEEDINGS**

Campbell, W.C. and R.G. Strauch, 1976: Meteorological Doppler radar with double pulse transmission, Preprint, *17th Radar Meteorology Conf.*, Amer. Meteorol. Soc., 42-44.

Chadwick, R.B., W.C. Campbell, K.P. Moran, and R.G. Strauch, 1976: Boundary layer wind measurements with an FM-CW radar, Preprint, *17th Radar Meteorology Conf.*, Amer. Meteorol. Soc., 326-329.

Frisch, A.S., W.C. Campbell, R.G. Strauch, and N.M. Kohn, 1976: A note on dual Doppler radar observations of post-frontal storms over the Olympic peninsula, *17th Radar Meteorology Conf.*, Amer. Meteorol. Soc., 228-231.

Moninger, W.R., A.S. Frisch, W.C. Campbell, and R.G. Strauch, 1977: Doppler radar measurements of plume dispersal and dissipation rates in the boundary layer, *18th Radar Meteorology Conf.*, Amer. Meteorol. Soc., 49-54.

Campbell, W.C., R.B. Chadwick, K.B. Earnshaw, and K.P. Moran, 1978: Low elevation angle wind measurements by FM-CW radar, Preprint, *19th Radar Meteorology Conf.*, Amer. Meteorol. Soc., 722-726.

Campbell, W.C., and J.S. Gibson, 1997: A programmable realtime data processing and display system for the NOAA/ETL Doppler radars. Preprints, *28th Conf. Radar Met.*, Austin, TX. Amer. Met. Soc., 178-179.

- Martner, B.E., K.A. Clark, S.Y. Matrosov, W.C. Campbell, and J.S. Gibson, 2001: NOAA/ETL's polarization-upgraded X-band "HYDRO" radar. Preprints, *30th Int. Conf. on Radar Meteorology*, Munich, Germany, Amer. Meteor. Soc., July 2001, 102–103.
- Reinking, R.F., R.A. Kropfli, S.Y. Matrosov, W.C. Campbell, M.J. Post, D.A. Hazen, J.S. Gibson, K.P. Moran and B.E. Martner, 2001: Concept and Design for a Pilot Demonstration Ground-Based Remote Icing Detection System. Preprints, *30th International Conference on Radar Meteorology*, Munich, Germany, Amer. Meteor. Soc., July 2001, P5.2.
- Schneider, T.L., R.F. Reinking, W.C. Campbell, K.A. Clark, J.S. Gibson, D.A. Hazen, S.Y. Matrosov, K.P. Moran and M.J. Post, 2002: NOAA/ETL's Polarization Radar-Microwave Radiometer System for Detecting In-Flight Icing Conditions – Progress in the Design and Development of Grids. *10<sup>th</sup> Conference on Aviation, Range, and Aerospace Meteorology*, Portland, OR, Amer. Meteor. Soc., May 2002, P7.5.
- Martner, B.E., B.W. Bartram, J.S. Gibson, W.C. Campbell, R.F. Reinking, and S.Y. Matrosov, 2002: An overview of NOAA/ETL's scanning Ka-band cloud radar. Preprints, *16th Conf. on Hydrology*, Orlando, FL, Amer. Meteor. Soc., 21–23.
- Schneider, T.L., B.W. Bartram, W.C. Campbell, J.S. Gibson, D.A. Hazen, S.Y. Matrosov and R.F. Reinking, 2004: An overview of ground-based remote sensing during AIRS-2 and WISP-04, using the NOAA GRIDS system. *11<sup>th</sup> Conference on Aviation, Range, and Aerospace Meteorology*, Hyannis, MA, Amer. Meteor. Soc., October 2004, P6.13.
- Schneider, T.L. and W.C. Campbell, 2006: A ground-based remote icing detection system (GRIDS) perspective on the November 11, 2003 SLD case during AIRS2. *12<sup>th</sup> Conference on Aviation, Range and Aerospace Meteorology*, Atlanta, GA, Amer. Meteor. Soc., January 2006, 7B.4.

## TECHNICAL REPORTS

- Strauch, R.G., W.C. Campbell, R.B. Chadwick, and K.P. Moran, 1975: FM-CW boundary layer radar with Doppler capability, *NOAA TR ERL 329-WPL*, U.S. Dept. of Commerce, Boulder, Colo.
- Strauch, R.G., W.C. Campbell, R.B. Chadwick, and K.P. Moran, 1975: Meteorological applications of the FM Doppler radar, *NOAA TR ERL 351-WPL 44*, Boulder, CO.
- Chadwick, R.B., K.P. Moran, G.E. Morrison, and W.C. Campbell, 1978: Measurements showing the feasibility for radar detection of hazardous wind shear at airports, *AFGL-TR-78-0160*, Hanscom AFB, MA 01731.
- Crissman, R.D., M.W. Evans, W.C. Campbell, J. Isaacson, and D. Knopp, 1984: Development of an HF CODAR Doppler transponder system for measuring sea ice motion, Gulf Oil Exploration and Production Co., Houston, TX, *Technical Rep. 446-RQ-004*.
- Gibson, J.S., Campbell, W.C. and B.E. Martner, 2004, RADIS: A Radar Acquisition and Display System for Research Radars, *NOAA Technical Report OAR ETL-69*. (Available at <http://www.esrl.noaa.gov/psd/people/Carroll.Campbell/>)
- Campbell, W.C., R.J. Hill and D.C. Welsh, 2006: NOAA/K Radar Data from the Rico 2005 Experiment: Description and Visualizations, *NOAA TM OAR PSD-310*. (Available at <http://www.esrl.noaa.gov/psd/people/Carroll.Campbell/>)
- Campbell, W.C., J.S. Gibson, R.F. Reinking and T.L. Schneider, 2008: Scientific Basis and Design of a Ground-based Remote Icing Detection System (GRIDS), *NOAA TM OAR PSD-312*. (Available at <http://www.esrl.noaa.gov/psd/people/Carroll.Campbell/>)